

PLANT MATERIALS EXTRACTION METHOD

ABSTRACT

A process for preparing plant extracts is provided. Plant materials, including tropolones, lignins and polar molecules, are mixed with a liquid polar solvent to form an extraction mixture, which is maintained under extraction conditions effective to extract lignins, polar molecules and at least 50% of the tropolones into the polar solvent to form a pregnant polar solvent liquid phase. The pregnant polar solvent phase is separated from the solid plant materials, and mixed with a substantially immiscible nonpolar solvent under conditions effective to partition the tropolones and lignins substantially into the nonpolar solvent and to partition the polar molecules substantially into the polar solvent to form a partitioned nonpolar solvent phase comprising lignins and tropolones, and a partitioned polar solvent phase comprising the polar molecules, and separating the polar solvent phase from the nonpolar solvent phase to obtain a polar plant extract and a nonpolar plant extract.